

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/00289

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ G02B6/43

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ G02B6/42-6/43

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

| | | | |
|---------------------------|-----------|----------------------------|-----------|
| Jitsuyo Shinan Koho | 1922-1996 | Toroku Jitsuyo Shinan Koho | 1994-2003 |
| Kokai Jitsuyo Shinan Koho | 1971-2003 | Jitsuyo Shinan Toroku Koho | 1996-2003 |

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X | JP 2000-347050 A (NHK Spring Co., Ltd.), 15 December, 2000 (15.12.00), Par. Nos. [0011], [0018]; Fig. 3 (Family: none) | 1-3 |
| X | SASAKI T. et al., "Multi-Channel Power Level Monitor with Upward-Reflector and Sensor-Array Integrated in Planar Lightwave Circuit", Optical Fiber Communication Conference (2001), p.WB6.1-WB6.3 | 1-3, 10-11 |

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:
 "A" document defining the general state of the art which is not
 considered to be of particular relevance
 "E" earlier document but published on or after the international filing
 date
 "L" document which may throw doubts on priority claim(s) or which is
 cited to establish the publication date of another citation or other
 special reason (as specified)
 "Q" document referring to an oral disclosure, use, exhibition or other
 means
 "P" document published prior to the international filing date but later
 than the priority date claimed

"T" later document published after the international filing date or
 priority date and not in conflict with the application but cited to
 understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be
 considered novel or cannot be considered to involve an inventive
 step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be
 considered to involve an inventive step when the document is
 combined with one or more other such documents, such
 combination being obvious to a person skilled in the art
 "&" document member of the same patent family

Date of the actual completion of the international search
 09 May, 2003 (09.05.03)

Date of mailing of the international search report
 27 May, 2003 (27.05.03)

Name and mailing address of the ISA/
 Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

This international application includes the following inventions that do not fulfill the requirement of unity of invention;

First invention: claims 1-3, 10-11

Second invention: claim 4

Third invention: claims 5-7

Fourth invention: claims 8-9

Our search on prior-art technologies has found that a matter in claims 1-3, 10-11 is disclosed in the following documents a, b, and therefore is not evidently novel;

(continued to extra sheet)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-3, 10-11

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No.II of continuation of first sheet(1)

Document a: JP 2000-347050 A (NHK Spring Co., Ltd.), 2000. 12. 15, [0011], [0018], Fig. 3 (no family)

Document b: Sasaki T et. Al., 'Multi-Channel Power Level Monitor with Upward-Reflector and Sensor-Array Integrated in Planar Lightwave Circuit ', Optical Fiber Communication Conference (2001) p. WB6.1-WB6.3.

Consequently the invention (first invention) in claims 1-3, 10-11 is not a special technical feature within the meaning of PCT Rule 13.2, second sentence, since it makes no contribution over the prior art.

The special technical feature of the invention (second invention) in claim 4 is that an optical detector-mounting member is installed tilted with respect to the top surface of an optical circuit.

The special technical feature of the invention (third invention) in claims 5-7 involves providing an optical path changing means for changing the optical path of a reflection light.

The special technical feature of the invention (fourth invention) in claims 8-9 is that an optical detector is placed on the top surface of an optical circuit, and the light incident surface of the optical detector is tilted with respect to the top surface of the optical circuit.

There exists no feature common to the above second, third and fourth inventions that is considered to be a special technical feature within the meaning of PCT Rule 13.2, second sentence, and no technical relationship can be found.